

INSTITUTE FOR WORK AT HEIGHT



Good Practice Note 2020

Good Practice notes inform the industry on how to embrace best practice and how to deal with issues that may arise. They are aligned with, but do not replace regulation as well as endorse industry standards

Inspecting personal fall protection equipment

Topic:

A general concern has been raised across different industries who make use of fall protection equipment and the requirements for the inspection of the equipment. This Good Practice Note is intended to provide information on the frequency, procedure and level of detail of inspections, as well as the type of records that must be kept.



Legal requirements:

Occupational Health and Safety Act, 85 of 1993
Construction Regulations, 2014
Driven Machinery Regulations, 2015
SANS 22846-2
SANS 50365:2004

Competency:

The Construction Regulations defines a "competent person" as "a person who—

- a) has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2008 (Act No. 67 of 2008), those qualifications and that training must be regarded as the required qualifications and training; and
- b) is familiar with the Act and with the applicable regulations made under the Act"

Where there is no registered qualification on the National Qualifications Framework (NQF), an LNQ (Learning not qualification) can be registered with the IWH Professional Body, which can also establish competency. An LNQ (Climbing Equipment Inspector) is currently registered with the IWH and can be trained through a recognised training provider.

SANS 50365: 2004 clause 3.3 for periodic examination defines a competent person as “a - person who is knowledgeable of the current periodic examination requirements, recommendations and instructions issued by the manufacturers applicable to the relevant component, subsystem or system”.

SANS 50365: 2004 clause 3.3 also states “This person should be capable of identifying and assessing the significance of defects, should initiate the corrective action to be taken and should have the necessary skills and resources to do so”.

Note: A competent person may need to be trained by a manufacturer or their authorised representative on specific PPE or other equipment (as detailed in Section 4) and may need to have that training updated due to modification and upgrades. This training is regarded as product specific training and should only happen once the person has already achieved competence for equipment inspections. (As above on the LNQ)

Sensible reasons for inspections:

There are various reasons for the deterioration of the materials used in fall protection equipment, including abuse, general wear and tear, edge/surface damage, ultraviolet light, dirt, grit, chemicals, excessive loading and falls of the user.

Materials deteriorate slowly, with age, regardless of use, however the most common cause of strength loss in textile equipment is through abrasion, either by grit working into the strands or by chafing against sharp or rough edges or by other damage such as cuts. Incorrect storage of textile-based items can also lead to its deterioration.

Research has emphasized that there is no well-defined boundary (e.g. lifespan) separating equipment that is safe-to-use and that which is not. The safest course of action is to scrap any item where a doubt exists on its condition. Proof load testing should not be carried out on textile components or (usually) on components used in conjunction with textile components (e.g. rope grabs). Load testing is a method of testing an item to its breaking capability and therefore makes the item unusable or un-safe. Load testing is a method used by an authorized test body, such as SABS, in the testing of submitted items of a batch to award product conformance certification to manufacturers.

Longevity and obsolescence of equipment:

It is a requirement for manufacturers to include a (Clause 4.4.4(y)) statement of any known limit to the safe useable life of the equipment or any part of the equipment and/or advice on how to determine when the equipment is no longer safe-to-use.

Some equipment is given a lifespan or obsolescence date by the manufacturer. Where the manufacturer does not give an obsolescence date, it is advisable to set a date after which such equipment should no longer be used. The information supplied by the manufacturer for the component should be referred to when deciding on the length of this period.

Equipment that has reached such a limit, which has not already been rejected for other reasons, should be withdrawn from service and not used again, until confirmed by the manufacturer, or a competent person trained and authorized by the manufacturer, in writing, to confirm it is safe for continued use.



Inspection and checks:

It is essential that the person carrying out any inspection is competent to do so. In the case of pre-use checks, this is likely to be the user, however detailed and interim inspections should be carried out by somebody sufficiently independent and impartial to allow them to make objective decisions and have appropriate and genuine authority to take the appropriate action.

This does not mean that competent persons must necessarily be employed from an external company.

Employers should establish a procedure for the inspection of equipment that is drawn up by a competent person. This procedure should be included in the Fall Protection Plan of the company as per the requirements of Construction Regulation 10(d).

The procedure should minimally include:

- ✓ the item to be inspected (including their unique identification/serial number)

- ✓ the frequency and type of inspection (pre-use checks, detailed inspection, interim inspection and servicing)
- ✓ designated competent persons who are to carry out the inspections
- ✓ action to be taken on finding defective equipment
- ✓ means of recording the inspections
- ✓ training of users and responsibilities for inspections
- ✓ a means of monitoring the inspection procedure to verify inspections are carried out accordingly
- ✓ Date the inspection was carried out and any notes of importance from the inspector.

There are three types of inspections which need to be conducted on personal protective equipment:

Pre-use Checks:

These checks are essential and should be carried out each time, before the equipment is used. Pre-use checks should be physical and visual, and the complete item should be subjected to the check. A visual check should be undertaken in good light and will normally take a few minutes. The functionality of items should also be checked. This check is generally conducted by the user, but it is recommended that the process is supervised by a team leader/manager/supervisor, etc.

Detailed Inspection:

Also referred to as Quarterly or Bi-Annual inspections, these are formal, comprehensive inspections that should be carried out at suitable intervals based on an assessment of the equipment type, frequency of use and environmental conditions. SANS 50365: 2004 recommends detailed inspection at least every 12 months. SANS 22846-2 recommend intervals not exceeding 6 months, or 3 months where the equipment is used in harsh conditions e.g., demolition, steel erection, scaffolding with sharp edges or in hazardous chemical environments

Where fall protection equipment is inspected the competency should be the LNQ indicated above as the highest competency and where rope access equipment is inspected it is recommended for a rope access supervisor (US ID 230001) or the Climbing Equipment Inspector LNQ as highest level of competency for the inspections.

(NOTE: Driven Machinery Regulation 18 establishes the requirements for hoisting equipment to be inspected by a competent person, and this has been accepted as the norm by most industries, for 3 monthly inspections as a minimum as this also refers to connectors, ropes and pulleys.

The competent person referred to in this regulation is a registered Lifting Tackle Inspector (LTI). If an LTI is to be used for the inspection of fall prevention equipment he should be trained and competent in the inspection of such equipment and not just in lifting tackle equipment).

A detailed inspection should also be carried out before first use and after circumstances have occurred which are liable to jeopardise safety, for example: if the equipment has been directly involved in an incident.

The results of the detailed inspection prior to first use, and subsequent detailed inspections should be recorded. The record of inspection should be kept until the next inspection is recorded.

Interim Inspections:

These are additional to detailed inspections. Interim inspections will be required where the employer's risk assessment has identified a risk that could result in significant deterioration, affecting the integrity of the equipment before the next detailed inspection is due.

The need for and frequency of interim inspections will depend on the use and environment. Examples of situations where they may be appropriate include grueling working environments involving paint, chemicals, grit blasting operations and acidic or alkaline environments.

The results of interim inspections should be recorded, and the record of inspection kept until the next inspection is recorded.

In addition, servicing might also be required on certain complex equipment. Some equipment, (such as retractable fall arresters and controlled rate descenders), must be serviced, inspected and re-certified by the manufacturer, or an approved representative of the manufacturer at least every 12 months, or more frequently if needed.

SANS 50365: 2004 Clause 4.4(b) states that *“Where deemed necessary by the manufacturer e.g. due to the complexity or innovation of the equipment, or where safety critical knowledge is needed in the dismantling, reassembly, or assessment of the equipment (e.g. retractable type fall arrester), an instruction specifying that the periodic examinations shall only be conducted by the manufacturer or by a person or organization authorised by the manufacturer”* shall be included with the equipment.



Keeping suitable records of inspections:

Apart from any legal considerations, good record keeping is essential to establish the age and conditions of use for equipment. All equipment must be marked individually to allow the history of the equipment to be recorded. Equipment must only be marked in ways that will not cause damage or reduce their effectiveness. In particular, textile equipment must not be indelibly marked on load bearing areas unless it has been ascertained that the marking agent will not cause damage to the textile.

Certificates of inspection should always be available with the equipment. Equipment should not be issued or used without evidence that the last inspection has been carried out. Evidence can take the form of a tag, label or document.

A non-conforming product can mean any item that does not display the relevant standard against which it was manufactured, either due to the manufacturer not marking the item, or the item is manufactured against any recognized standard. In some cases, the standard identification mark has been removed from the item, either through wear and tear or scuff marking, thus making the item non-conforming.



Withdrawing equipment from use:

If there is no evidence that equipment has been inspected by a competent person within the last six months and/or identification marks are not present, it should be withdrawn from service immediately and passed to a competent person for a detailed inspection to decide on what further action should be taken.

It is important that there is a quarantine procedure for ensuring that defective or suspect equipment that has been withdrawn from service does not go back into service mistakenly. Any equipment considered to be defective should be permanently broken up/damaged before being disposed of, to ensure that it cannot be retrieved and used again.

Equipment that has been used to arrest a fall should never be reused. It should be withdrawn from service immediately and destroyed or returned to the manufacturer.

Disposal of unserviceable equipment:

Equipment that has been removed from service to be disposed, should be placed on record and should include the following information as a minimum:

- ✓ Date of disposal
- ✓ Equipment description

Contact Us

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- ✓ Method of disposal
- ✓ Place of disposal
- ✓ Person authorised to do disposal
- ✓ Signature of person authorised
- ✓ Equipment conformity certificates attached and cancelled

It is recommended that items to be disposed of are returned to the manufacturer for this purpose. This is to ensure environmental good practice is followed in the disposal of materials.



Notes:

This document does not give information about the criteria for inspecting individual equipment, methods of care or cleaning, or information about storage and or maintenance. Employers and their competent equipment inspectors should consult the manufacturer and/or supplier of the equipment for any equipment-specific requirements.



